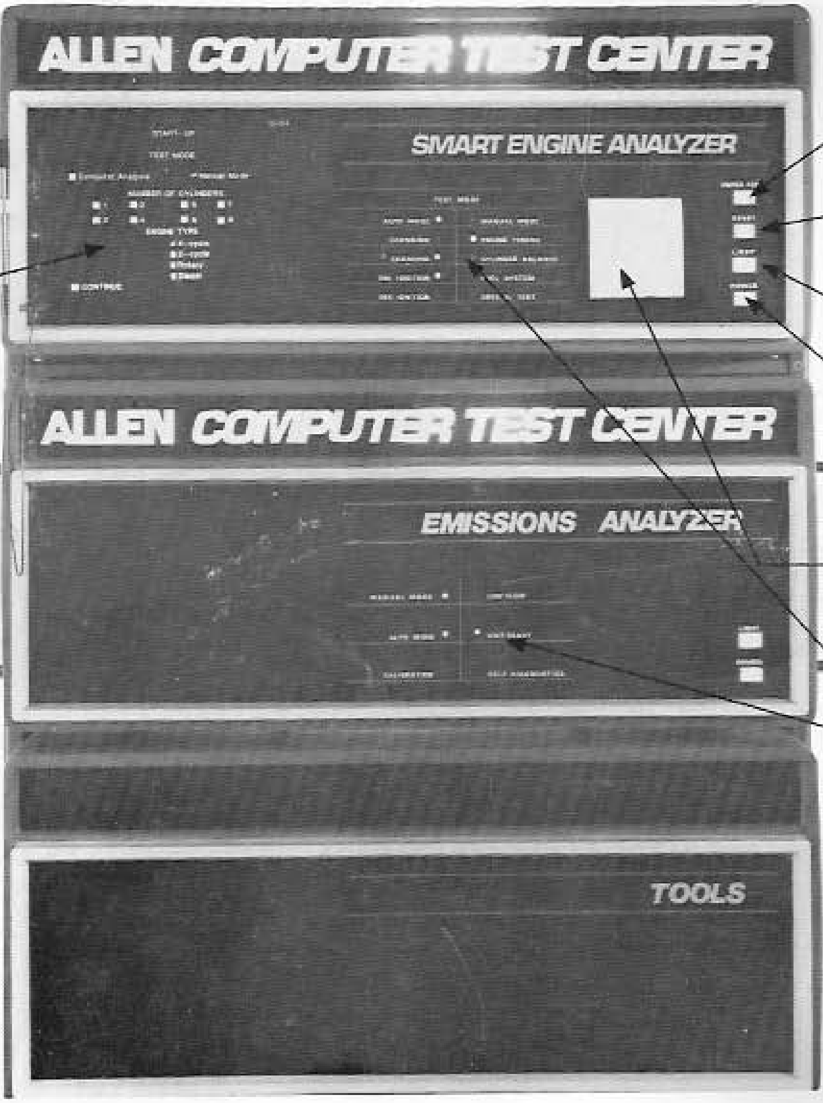
ALLEN GROUP

62-000 Series Smart Engine Analyzer

EZ REFERENCE OPERATION GUIDE

P/N 25738-001



PAPER FEED BUTTON - Advances printer paper as long as the button is pushed in.

RESET BUTTON - Clears the **SEA**'s short-term memory. Press RESET when beginning diagnosis on another vehicle to prevent carry-over of previous test results.

BANNER LIGHT BUTTON - Lights the banner without turning on the main power switch.

POWER BUTTON - Main power source for the **SEA**.

PRINTER SLOT - Printed analysis results, vehicle data and waveform displays are fed out through this slot.

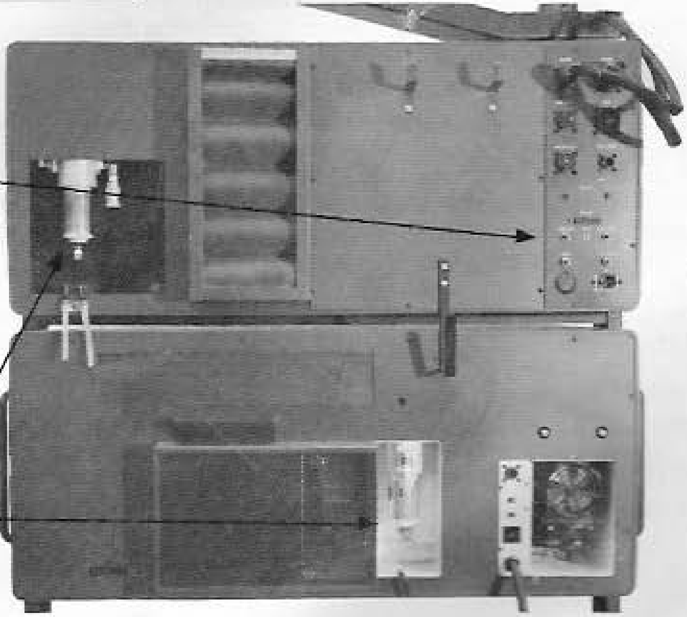
MODE INDICATOR LIGHTS -Display the **SMART ENGINE ANALYZER**'s operating mode during testing.

CONNECTOR PANEL - Contains inputs for the boom and optional equipment, circuit breakers, AC power line.

COMPUTER MONITOR - The main communication link between the Computer and Operator. Receives and displays data and prompts the Operator to adjust test conditions.

LIGHT PEN - Used to input choices to the **SEA** Computer.

GAS ANALYZER FILTER - Inspect regularly. See **SEA Maintenance** section for details.



REAR PANEL

BOOM INPUT - Special 1-way connectors to connect to boom cables.

TIM. LIGHT - 1-way connector to plug in timing light cable.

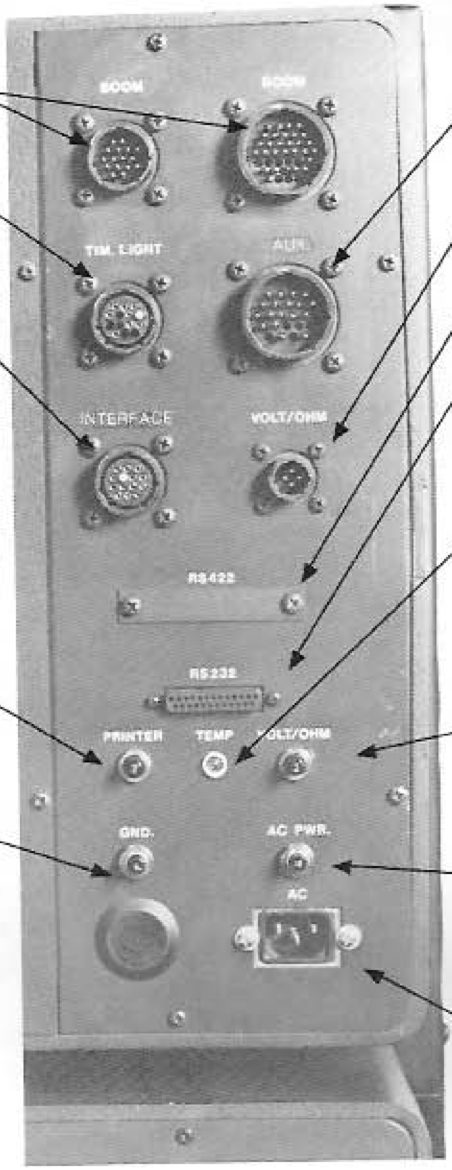
INTERFACE - Connector for the Vehicle Computer Interface "Box". Cable runs to "Analyzer Input Cable" connector on the interface box.

CIRCUIT BREAKERS

PRINTER - (2A) Protects AC supply to printer. If the printer is inoperative, reset printer circuit breaker.

GROUND - (6A) Protects the vehicle and AC ground. If the GND circuit breaker trips, cylinder kill function will be inoperative and the **SEA** displays may be erratic.

Always check circuit breakers and AC power cord **before** calling your Allen Service Representative.



AUX - Connector for optional equipment output.

VOLT/OHM - Connector for multimeter leads.

RS422 - for future expansion.

RS232 - Communications connector for optional accessories.

TEMP LIGHT - the temperature light is triggered if the unit overheats. The screen may also go blank or lock up. If the temp light is **on**, turn the unit off and clean the cooling fan air filter. Replace the filter and turn on the **SEA** again.

VOLT/OHM METER Circuit Breaker (2 Amp) - May open if the ohm meter probes are connected to a "live" (voltage carrying) circuit. Remove the probes from the circuit before resetting circuit breaker.

AC POWER Circuit Breaker (10A)- If the AC circuit breaker is tripped, the **SMART ENGINE ANALYZER** and banner light will be inoperable.

AC - Connector for main power cord.

NOTE: If any of the circuit breakers "pop" repeatedly, call your Allen Testproducts Service Representative.

Your **SMART ENGINE ANALYZER** should be connected only to a 115 VAC 60 Hz electrical source. Use a grounded 3-prong outlet. To ensure the best operation of the internal computer, the supply circuit should be a "dedicated" circuit with a grounding connector.

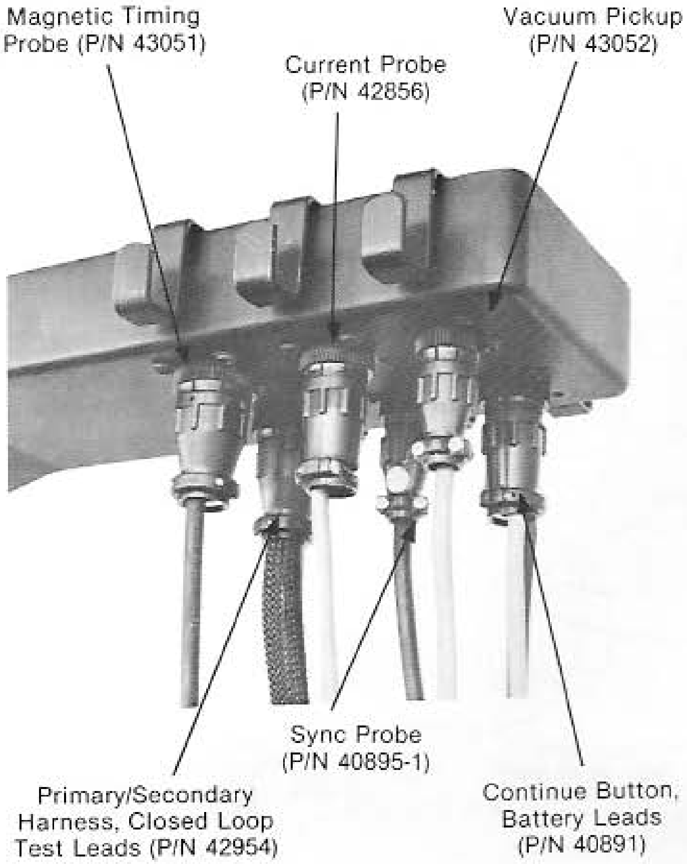
The **SEA** should be operated only where there is adequate ventilation, with the cooling fan inlet (on the rear of the cabinet) at least 18 inches from the nearest wall.

WARNING: Do not connect or disconnect any of the engine sensors while the engine is running. There are potentially hazardous voltages in the vehicle's ignition system.

NOTE: If your **SMART ENGINE ANALYZER** was not sold in the United States, please check the nameplate for correct operating voltage and frequency.

BOOM CONNECTORS

Boom Connectors contain plug-in receptacles for the engine harness connectors. Each receptacle is keyed so only the correct lead can be inserted into the receptacle. (See illustration for location.)


Magnetic Timing Probe (P/N 43051)
Current Probe (P/N 42856)
Vacuum Pickup (P/N 43052)
Sync Probe (P/N 40895-1)
Primary/Secondary Harness, Closed Loop Test Leads (P/N 42954)
Continue Button, Battery Leads (P/N 40891)

SMART ENGINE ANALYZER SELF-DIAGNOSTICS

Whenever the power switch is turned on, the **SMART ENGINE ANALYZER** performs a check of its internal memory and circuits with a "self-diagnostics" test. If it discovers a problem, an error message will be displayed on the monitor and/or the printer. If there is an error message, contact your Allen Testproducts Service Representative.

NETWORKING THE GAS ANALYZERS

The **SEA** will perform most tests without requiring the optional 4-Gas Analyzer or EPA Analyzer to be warmed up and "networked" with the **SEA**. The tests that require the gas analyzers are: **#Complete Systems Analysis, Individual Fuel Systems,** and **Manual Mode Fuel Systems** Tests.

EPA Analyzer: For normal **SEA** operation, turn on both units and select **NETWORK MODE** from the EPA SET UP Screen. The screen will go blank and the **UNIT READY** light will light after 15-20 minutes to indicate that it is ready for testing. To use any part of the EPA Analyzer, press the **ESCAPE** key on the EPA Analyzer so it will operate independently of the **SMART ENGINE ANALYZER.**

4-Gas Analyzer: Turn both units on. The **UNIT READY** AND **COMMUNICATIONS** lights will appear (after about 15-20 minutes) when the 4-Gas Analyzer is ready for testing.

PRINTER

The **PAPER FEED** button at the right of the printer is used to feed out more paper and also to assist in reloading a new roll.

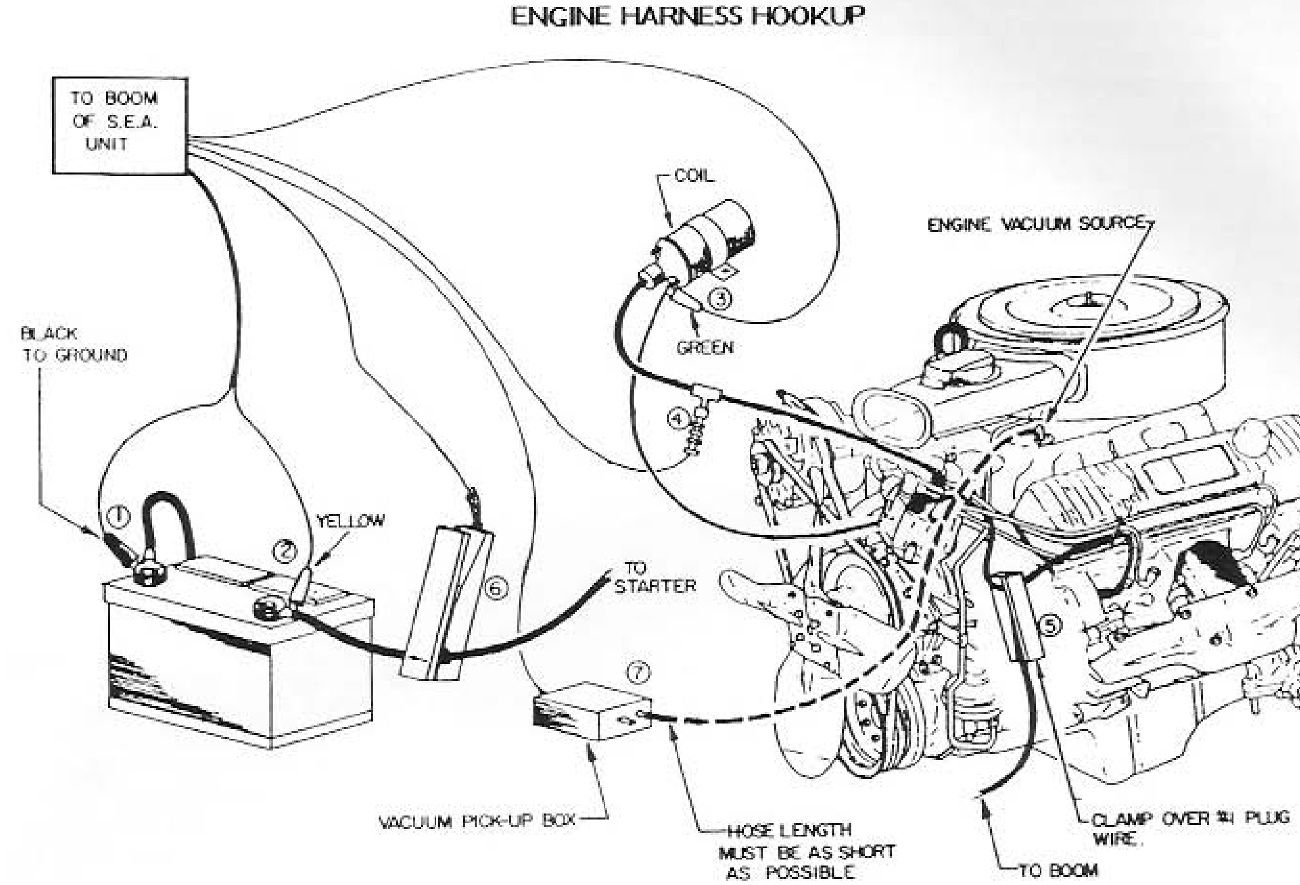
When any Automatic Test is completed, test results are displayed on the computer monitor. The operator may select the **#Print Results** bullseye. The printer will print the results of that test along with the **Results References** and any customer symptoms selected.

If the operator made a mistake while testing or wishes to correct a **Complete Systems Analysis** after repairs have been made, the corrected results can be inserted in the test. Select **Individual Systems Analysis** and repeat the test where the repair or error was made. Select **#Recall Results**, and the **SEA** will automatically replace the previous data with the corrected test results.

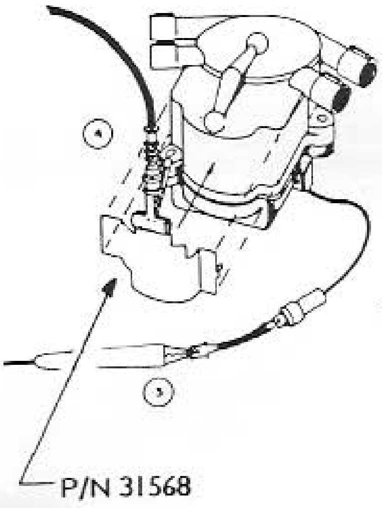
When using Manual Mode, press the remote push-button to "Freeze" the data on the screen. **DATA STORED** will appear. Use the light pen to select **#Print Data** for a printout of digital information from the screen.

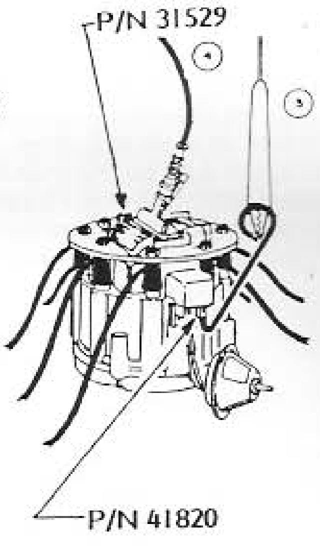
The printer can also produce patterns similar to an oscilloscope display for ignition primary and secondary ignition systems, diode patterns and waveforms from the closed loop test leads. The screen initially will read **#Print 1st Waveform#**. Select the righthand bullseye to change the cylinder in the firing order to be printed. The screen will read **#Print 2nd Waveform#**, then each waveform in the firing order (up to 8), then **#Print ALL Waveforms#**. By selecting the right bullseye again, it will return to **1st Waveform**. Use the light pen to select the lefthand bullseye to print the waveform.

ENGINE HARNESS HOOKUP



GM High Energy Ignition (HEI) and Toyota Integrated Ignition Assembly (IIA) require special hookups for the Green Lead tachometer signal and the secondary clip.





Insert the exhaust probe at least 12 inches into the tailpipe.

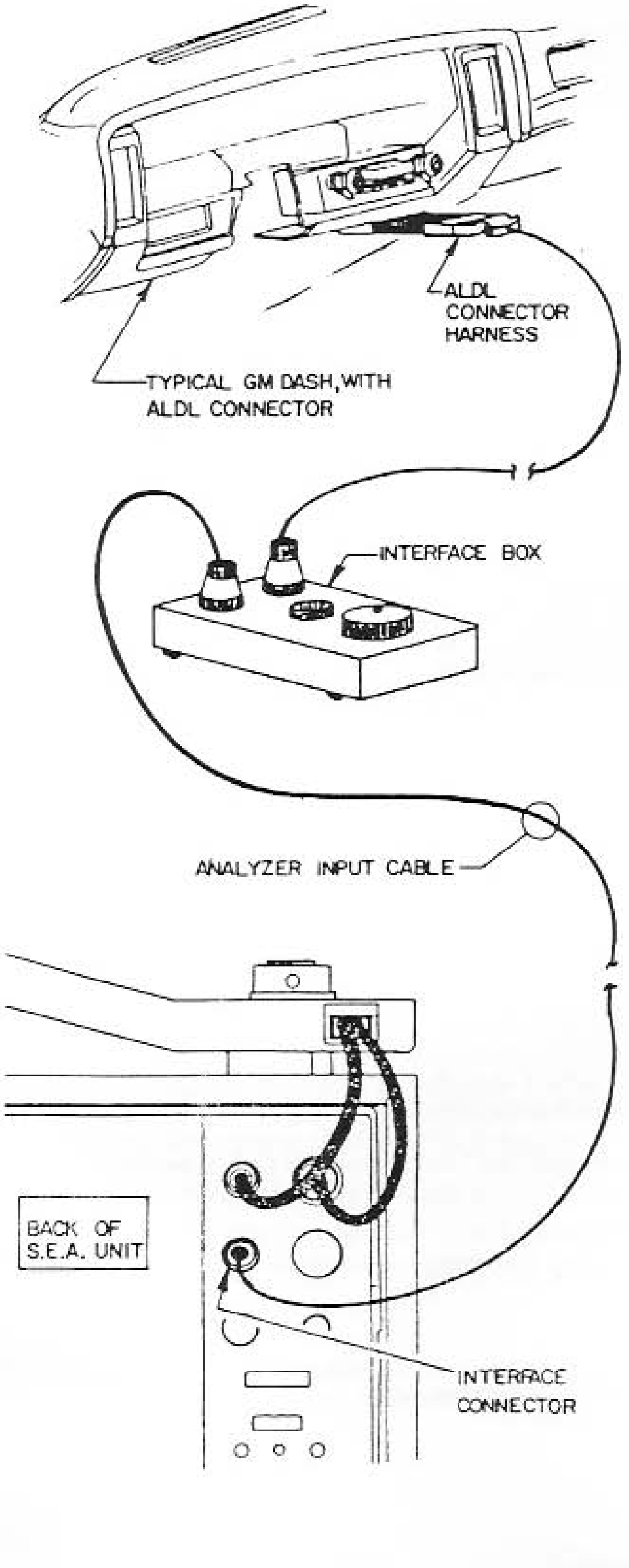
When performing a **Complete Systems Analysis** on 1981 and later model GM vehicles equipped with a diagnostic connector, install the Vehicle Computer Interface Box. Attach the proper cable to the connector under the dashboard and the Vehicle Computer Interface Box. The other cable is installed between the box and the **SEA** rear connector panel.

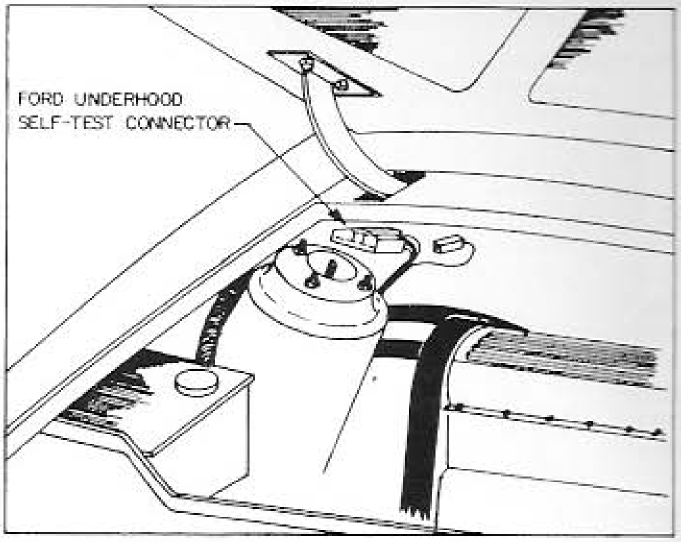
COMPUTER ON-BOARD DIAGNOSTIC HARNESS HOOK UP

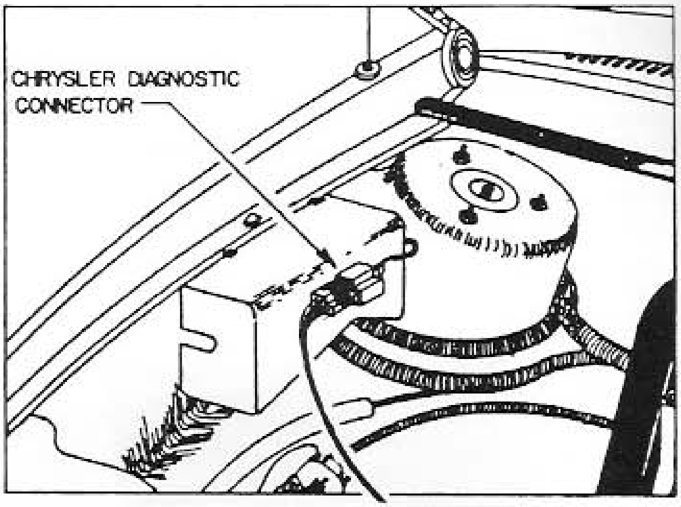
Attach the **SMART ENGINE ANALYZER** engine harness as usual.

Locate the vehicle diagnostic connector, and attach the proper lead to the vehicle connector as shown. Attach the lead to the Vehicle Computer Interface Box.

Attach the Analyzer Input Cable to the "INTERFACE" connector on the **SEA** rear panel.







When testing on-board computers, locate the vehicle's diagnostic connector and use the appropriate connector cable provided with the **SEA.**

GM: Located under the dashboard, near the fuse box, or under the ashtray on Corvette.
FORD: Located near the microprocessor under the hood near the shock tower.
CHRYSLER: Located underhood near the right strut tower.

COMPUTER TESTING

Enter the proper information on the Data Entry Screens. The **SEA** will determine which system is being tested.

Follow the prompt screens carefully.
When the trouble codes are displayed, refer to the manufacturer's manual for diagnosis and repair.

When testing GM vehicles, the operator may select **#Full Chart** to read all on-board computer information.

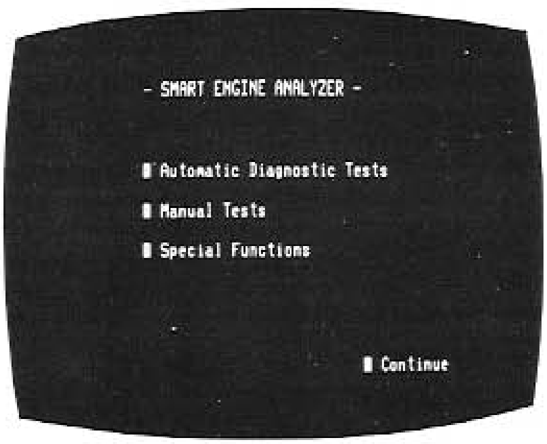
NOTE: Do not replace system components based only on the trouble code(s) displayed by the **SEA.** Further diagnosis is needed using factory manuals.

BEGINNING TESTING

Plug the **SEA** into a grounded 120v AC socket. Turn the main power switch ON. The unit must run for at least 10 minutes before it will display valid exhaust gas readings (20 minutes for optional 4-Gas and EPA Analyzers). Hook up the engine harness as shown previously and insert the exhaust probe at least 12" into the tailpipe.

START UP SELECTION

The screen will always appear when the **SEA** is turned on, the **Reset** button is pushed, or **#Return To Start Up** is selected. Select the type of test to be run using the light pen.



- SMART ENGINE ANALYZER -

■ Automatic Diagnostic Tests

■ Manual Tests

■ Special Functions

■ Continue

#Automatic Diagnostic Tests:
Performs a **Complete Systems Analysis** or **Individual Systems Analysis** directed by the **SEA's** computer.

#Manual Tests:
Tests individual systems or components. These tests are under the operator's control.

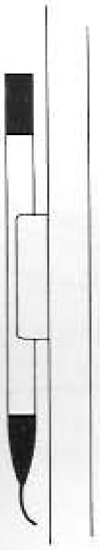
#Special Functions:
Provides access to non-testing operations i.e. setting the clock, entering the shop name or calibrating the emissions analyzer.

LIGHT PEN

The fiber optic light pen is used to select tests and communicate with the computer.

HOW IT WORKS:

The bullseye will blink when the light pen is pointing at it, indicating that the bullseye has been hit and will accept entry. It will blink twice then change to # as a visual indication of your choice. If an error was made, repeating the process will "deselect" the instruction and the # will return to a bullseye.



There are some "command" words to become familiar with which will mean the same thing any time they are seen.

#Continue: Tells the **SEA** to go to the next screen, or the data requested has been entered, or the screen prompt has been completed. Select **#Continue** with the light pen or press the remote pushbutton.

#Cancel: Stops the test and returns the **SEA** to the Start Up Screen. All test results are retained.

#Review Entries: Selecting this bullseye, then **#Continue**, allows the operator to review and/or correct any previous Data Entry Screen.

#Return To Start Up: Returns the **SEA** to the Start Up Screen.

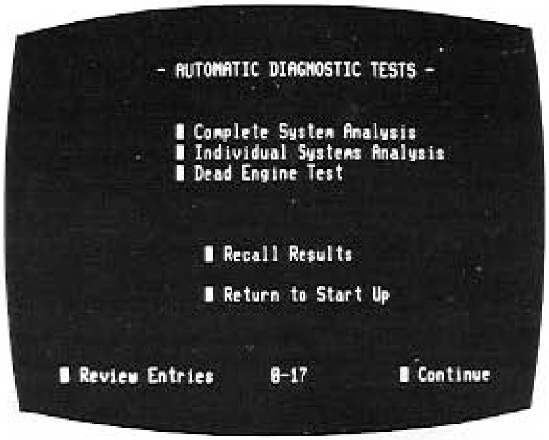
#Recall Results: Displays results from tests run since the reset button was pushed. **#Recall Results** can also function to update a **Complete Systems Analysis** printout by running an **Individual Systems Analysis**.

Choosing **#Automatic Diagnostic Tests** will give the operator these choices:

#Complete Systems Analysis:
Automatically tests all 7 major engine systems, then provides a **results** printout.

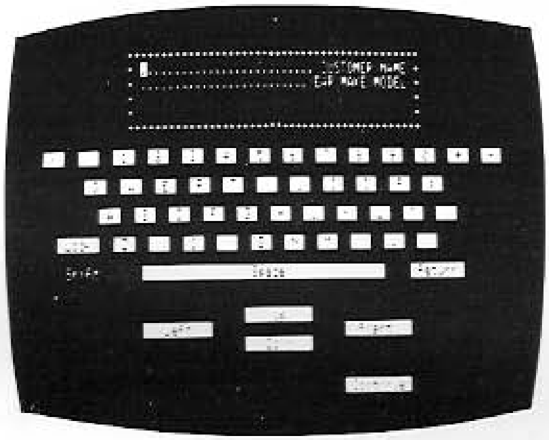
#Individual Systems Analysis:
Automatically tests the individual Cranking, Charging, Timing, Fuel System, Primary/Dwell, Secondary/Power Analysis or On-Board Computer Analysis and provides a printout.

#Dead Engine Test:
Automatically tests and systematically tracks down the cause of a "no start" or dead engine. Use the light pen to make your choice.


- AUTOMATIC DIAGNOSTIC TESTS -
▮ Complete System Analysis
▮ Individual Systems Analysis
▮ Dead Engine Test
▮ Recall Results
▮ Return to Start Up
▮ Review Entries
8-17
▮ Continue

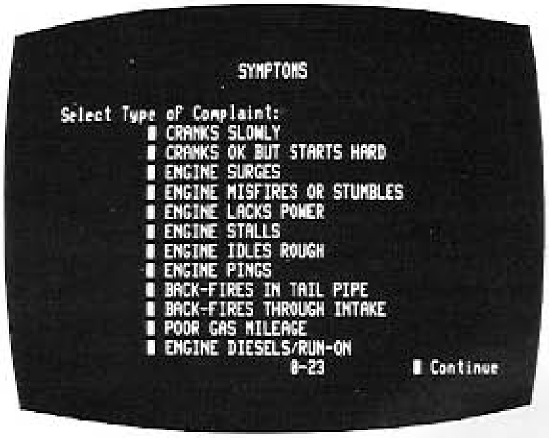
Choosing any test will display a series of Data Entry Screens. Be as accurate and thorough as possible when providing the information.

The first screen is the **Customer Entry** Keyboard. Using the light pen, select customer name and vehicle type. Select **#LEFT** or **#RIGHT** to back up or to make corrections, and **#UP** or **#DOWN** to change lines. To print lower case letters, use the light pen to select **Lock**. Select **Shift** to return to upper case letters. **#Return** advances the cursor to the next line, and **#Space** will insert a space between letters. This data will then be printed on the customer printout after any automatic testing. The operator may choose to skip the customer name keyboard by selecting **#Continue**.



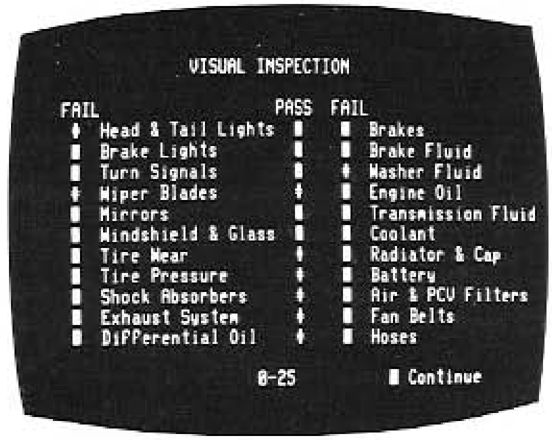
Select **#Print** to print only this heading. Select **#Clear** to clear the screen and restart.

Select the appropriate symptoms based on the customer complaints. Select **#Continue** after entering symptoms or to skip this section.



VISUAL INSPECTION

Use this screen as a checklist to check the general condition of the vehicle. The checklist will be printed after performing any automatic testing. Only the items checked as "pass" or "fail" will be printed. Select **#Continue** after the information has been entered. To print ONLY this checklist, select **#Special Functions** from Start Up Selection Screen, then **#Visual Inspection**. Enter the information, then select **#Print Data**.



```
                VISUAL INSPECTION

FAIL                          PASS  FAIL
 ♦   Head & Tail Lights  ■     ■   Brakes
 ■   Brake Lights        ■     ■   Brake Fluid
 ■   Turn Signals        ■     ♦   Washer Fluid
 ♦   Wiper Blades        ♦     ■   Engine Oil
 ■   Mirrors             ■     ■   Transmission Fluid
 ■   Windshield & Glass  ■     ■   Coolant
 ■   Tire Wear           ♦     ■   Radiator & Cap
 ■   Tire Pressure       ♦     ■   Battery
 ■   Shock Absorbers     ♦     ■   Air & PCV Filters
 ■   Exhaust System      ♦     ■   Fan Belts
 ■   Differential Oil    ♦     ■   Hoses

                   0-25          ■ Continue
```

NUMBER OF CYLINDERS

Select proper number of cylinders up to 8.

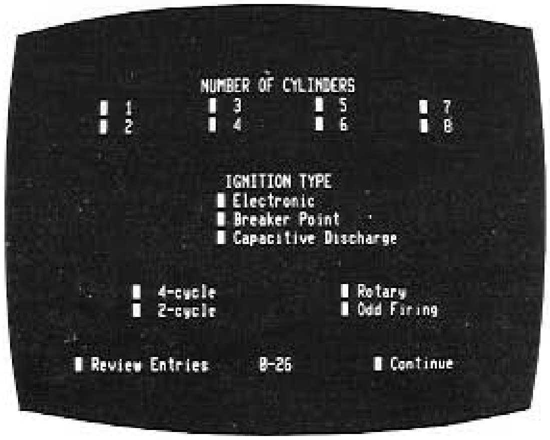
IGNITION TYPE

Select **#Electronic** if vehicle is equipped with breakerless ignition (GM HEI, Chrysler Lean-Burn, AMC BID, etc.).

Select **#Breaker Point** if vehicle has conventional points ignition.

Select **#Capacitive Discharge** if vehicle is equipped with a C-D ignition. The C-D selection can be used in conjunction with either **Electronic** or **Breaker Points** type ignitions. Testing capacitive discharge ignitions requires a special adapter kit P/N 32-170.

The **SEA** automatically preselects **#4-cycle**. Select any of the other choices as they apply.

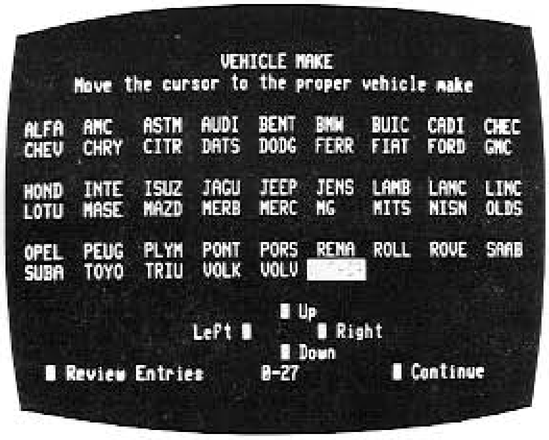


```
              NUMBER OF CYLINDERS
   ■ 1          ■ 3          ■ 5          ■ 7
   ■ 2          ■ 4          ■ 6          ■ 8

                  IGNITION TYPE
                 ■ Electronic
                 ■ Breaker Point
                 ■ Capacitive Discharge

        ■  4-cycle                   ■ Rotary
        ■  2-cycle                   ■ Odd Firing

  ■ Review Entries      0-26        ■ Continue
```

VEHICLE MAKE

Move the cursor using the light pen. Select **#Up, #Down, #Left** or **#Right**. When the cursor is on the proper make, select **#Continue**.

NOTE: Information on this screen is retained even after **RESET** is pushed. Be sure to enter the correct data on this screen with EACH vehicle being tested.

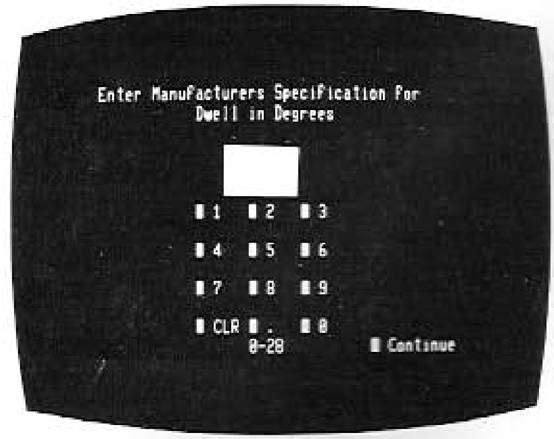


```
                  VEHICLE MAKE
       Move the cursor to the proper vehicle make

ALFA  AMC   ASTM  AUDI  BENT  BMW   BUIC  CADI  CHEC
CHEV  CHRY  CITR  DATS  DODG  FERR  FIAT  FORD  GMC

HOND  INTE  ISUZ  JAGU  JEEP  JENS  LAMB  LAMC  LINC
LOTU  MASE  MAZD  MERB  MERC  MG    MITS  NISN  OLDS

OPEL  PEUG  PLYM  PONT  PORS  RENA  ROLL  ROVE  SAAB
SUBA  TOYO  TRIU  VOLK  VOLV

                        ■ Up
                 Left ■       ■ Right
                        ■ Down
  ■ Review Entries      0-27          ■ Continue
```

DWELL SPECIFICATION

Enter the dwell specification in degrees. The number will be displayed in the highlighted box.

Example: If the dwell specification is 45°, select **#4**, then **#5**. To correct a mistake, select **#CLR** and start over. When the data is correct, select **#Continue**.



```
     Enter Manufacturers Specification for
               Dwell in Degrees



            ■ 1    ■ 2    ■ 3

            ■ 4    ■ 5    ■ 6

            ■ 7    ■ 8    ■ 9

            ■ CLR  ■ .    ■ 0
                   0-28            ■ Continue
```

TYPE OF FUEL SYSTEM

CARBURETION SYSTEM

#Standard: this means carburetors without electronic mixture control systems.

#Feedback or Closed Loop: carburetors with leads for mixture control solenoids and oxygen sensor in the exhaust pipe or manifold (GM CCC, Ford MCU).

#Variable Venturi: Ford VV System and most sidedraft **mechanical** carburetors (MG, Volvo).

#Variable Venturi with Feedback: Ford VV System with a 6-wire connector leading to carburetor stepper motor.

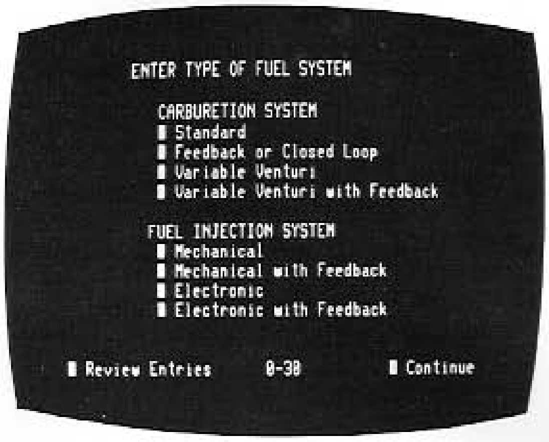
FUEL INJECTION SYSTEMS

#Mechanical: Bosch K-JET CIS System installed in VW, Audi.

#Mechanical With Feedback: newer model Bosch K-JET with an O2 (Lambda) oxygen sensor in the exhaust manifold.

#Electronic: Bosch L-Jetronic and D-Jetronic systems, GM systems. Injectors that are controlled by an electrical solenoid at the injector or on the fuel rail.

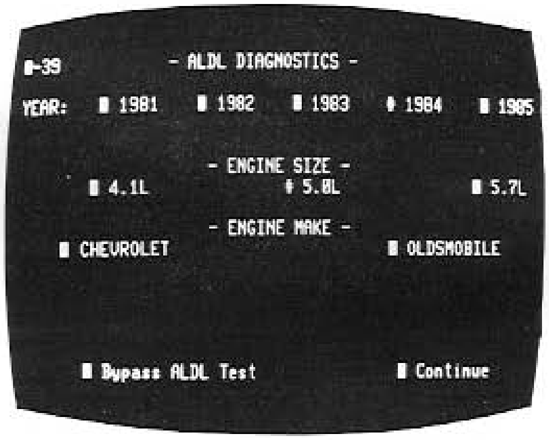
#Electronic with Feedback: Electronic Fuel Injection Systems that also have an oxygen sensor as an additional regulating factor, e.g. GM's TBI (Throttle Body Injection), Bosch L-JET with Lambda Sensor.



```
ENTER TYPE OF FUEL SYSTEM

  CARBURETION SYSTEM
  ■ Standard
  ■ Feedback or Closed Loop
  ■ Variable Venturi
  ■ Variable Venturi with Feedback

 FUEL INJECTION SYSTEM
  ■ Mechanical
  ■ Mechanical with Feedback
  ■ Electronic
  ■ Electronic with Feedback


■ Review Entries      0-38        ■ Continue
```

ALDL DIAGNOSTICS

If a General Motors engine is being tested, this screen appears. Select the production year and appropriate engine size. The **SEA** may also ask the body style, and the type of fuel system. Select all applicable information.



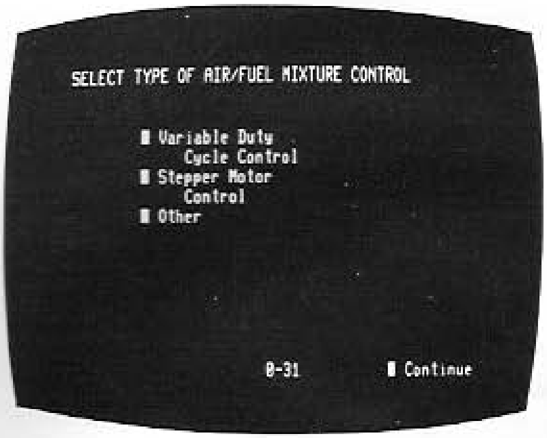
```
■-39          - ALDL DIAGNOSTICS -

YEAR:  ■ 1981   ■ 1982   ■ 1983   # 1984   ■ 1985


              - ENGINE SIZE -
   ■ 4.1L              # 5.0L              ■ 5.7L
              - ENGINE MAKE -
 ■ CHEVROLET                        ■ OLDSMOBILE



   ■ Bypass ALDL Test                ■ Continue
```

TYPE OF FUEL MIXTURE CONTROL

#Variable Duty Cycle Control: Closed Loop Systems that use a mixture control solenoid or frequency valve to control air/fuel ratio.

#Stepper Motor Control: AMC 6-cylinder CEC System, Ford Variable Venturi with Feedback fuel control.

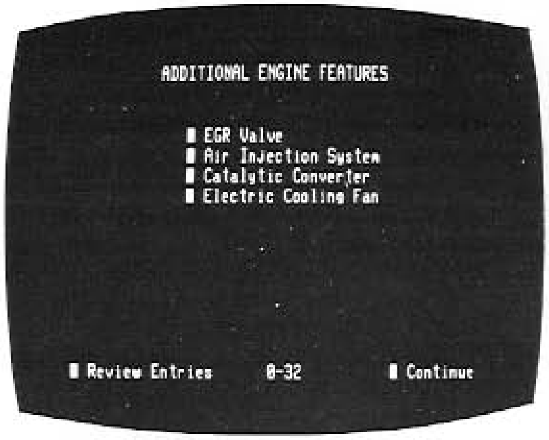
#Other: Fuel Injected Engines.



```
SELECT TYPE OF AIR/FUEL MIXTURE CONTROL


      ■ Variable Duty
           Cycle Control
      ■ Stepper Motor
           Control
      ■ Other




                    0-31        ■ Continue
```

ADDITIONAL ENGINE FEATURES

Select any of the features using the light pen. During the test, the operator may be asked to disable or enable any of these systems. Failing to enter the correct data on this screen could lead to inaccurate results in testing.



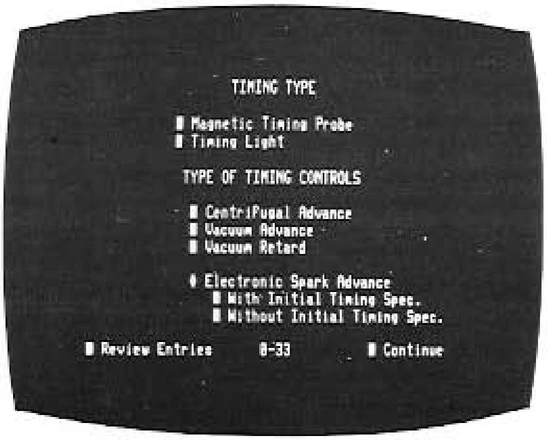
TIMING TYPE

Select either **#Magnetic Timing Probe**, or **#Timing Light.**

TYPE OF TIMING CONTROLS

Select **#Centrifugal Advance, #Vacuum Advance**, and/or **#Vacuum Retard**. The engine being tested may have any one or all three types.

#Electronic Spark Advance (with or without Initial Timing Specification). This selection is for vehicles with electronic spark advance systems instead of the mechanical advance systems.

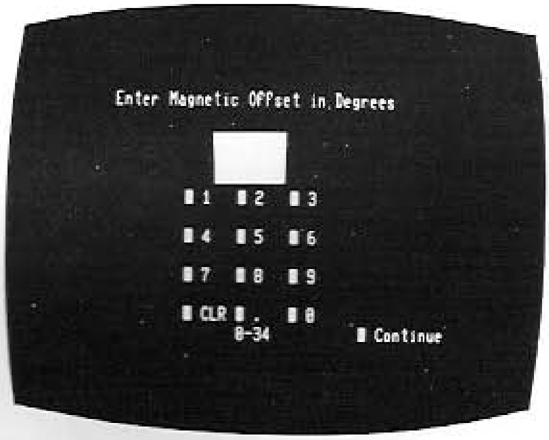


ENTER MAGNETIC TIMING OFFSET

When **#Magnetic Offset** is selected, the probe offset from TDC must be entered.

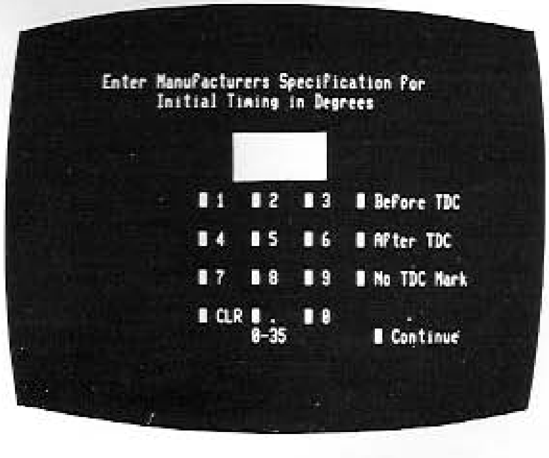
Example: if the probe offset specification is 10, select **#1**, then **#0**. To correct a mistake, select **#CLR** and start over. When the data is correct, select **#Continue**.

When testing GM vehicles, this screen will be skipped and the **SEA** will automatically select 9.5.



MANUFACTURERS SPECIFICATION FOR INITIAL TIMING IN DEGREES

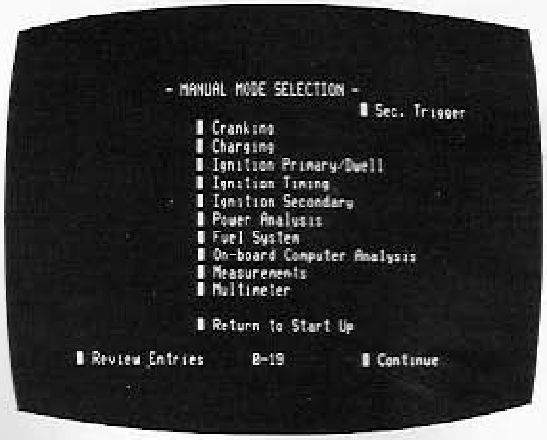
Enter the specification for initial timing. This information is normally found on the underhood emissions label. The **SEA** automatically selects **#Before TDC.** Using the light pen, select **#After TDC** or **#No TDC** mark as required.


Enter Manufacturers Specification For Initial Timing in Degrees
▮ 1 ▮ 2 ▮ 3 ▮ Before TDC
▮ 4 ▮ 5 ▮ 6 ▮ After TDC
▮ 7 ▮ 8 ▮ 9 ▮ No TDC Mark
▮ CLR ▮ . ▮ 0
0-35
▮ Continue

Once all the Data Entry Screens are completed, the **SEA** will begin the **Automatic** Test.

MANUAL MODE SELECTION

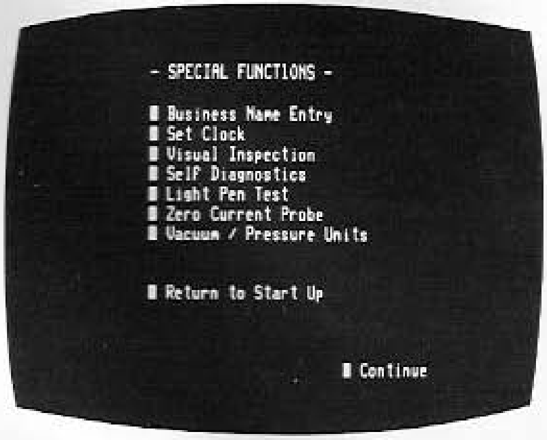
If the operator wants to perform any type of manual tests using the **SEA**, select **#Manual Tests** from the Start Up Screen. The **MANUAL MODE SELECTION** screen will be displayed. Hook up the engine harness, select the desired test, and follow the screen prompts carefully. The possible Manual Mode Tests are listed on the screen sample.



```
               - MANUAL MODE SELECTION -
                                      ■ Sec. Trigger
                 ■ Cranking
                 ■ Charging
                 ■ Ignition Primary/Dwell
                 ■ Ignition Timing
                 ■ Ignition Secondary
                 ■ Power Analysis
                 ■ Fuel System
                 ■ On-board Computer Analysis
                 ■ Measurements
                 ■ Multimeter

                 ■ Return to Start Up

  ■ Review Entries      0-19           ■ Continue
```

SPECIAL FUNCTIONS

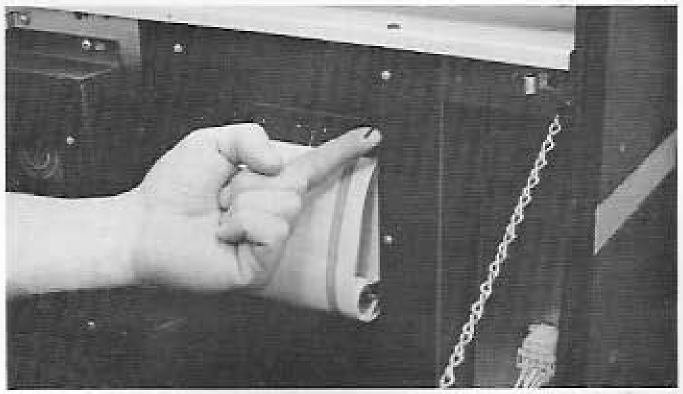
#Special Functions allows the operator to perform several necessary operations on the **SEA**. From the Start Up Screen, select **#Special Functions** and this screen will appear.Select the desired operation and follow the screen prompts carefully.



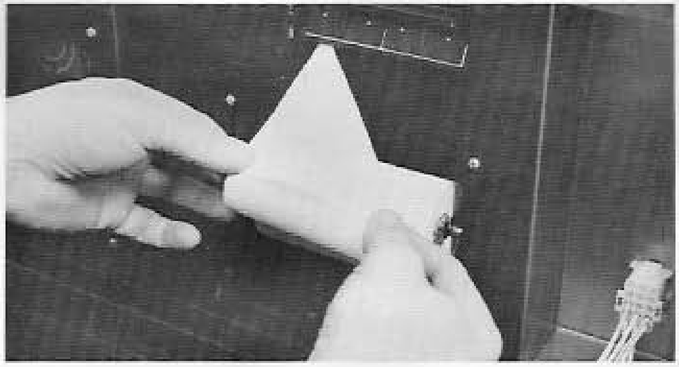
```
  - SPECIAL FUNCTIONS -

  ■ Business Name Entry
  ■ Set Clock
  ■ Visual Inspection
  ■ Self Diagnostics
  ■ Light Pen Test
  ■ Zero Current Probe
  ■ Vacuum / Pressure Units


  ■ Return to Start Up


                              ■ Continue
```

SEA MAINTENANCE
CHANGING PRINTER PAPER

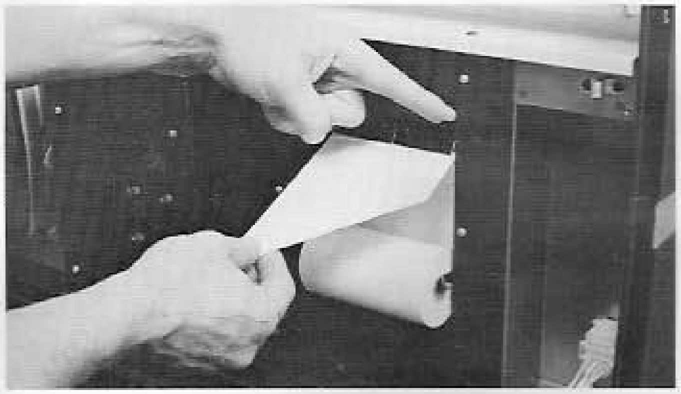
1. Pull down the front panel.
2. Lift up the printer lever to release the paper as shown below.



3. Remove the leftover paper and put the new roll on the spool so it feeds upwards from the back.
4. Fold the paper into a point and insert the pointed end just behind the black roller and push upward until the paper appears from the top of the printer.



5. Carefully pull about 12" of paper through the printer, then press the lever down to engage the paper.
6. Feed the paper through the printer slot and close the front panel.



AIR FILTER
Clean weekly. Push the filter up to remove it from the **SEA** rear panel. Complete cleaning instructions are printed on the filter housing.

PLEXIGLASS FRONT PANEL
Use a commercial window cleaner mixed 1:1 with water on both sides. **Do not** use abrasive cleaners or scouring pads.

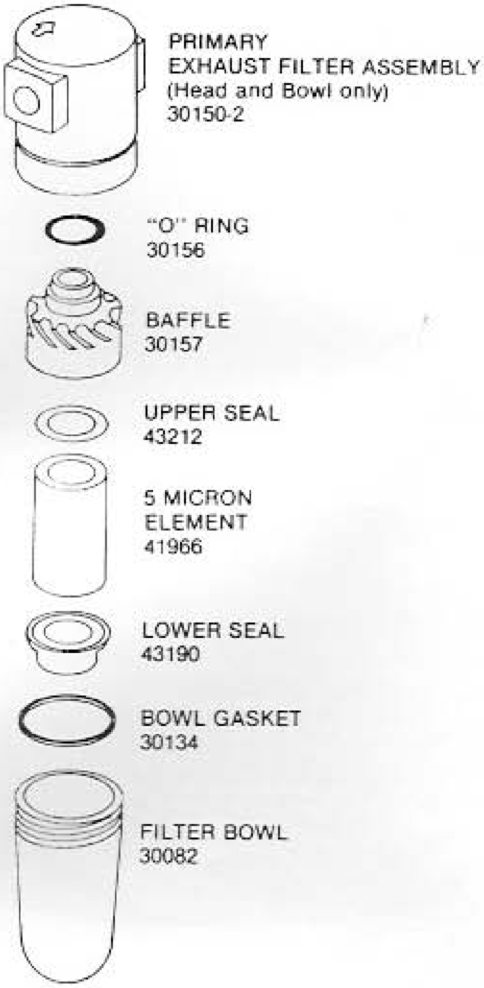
BANNER LIGHT
Open the front panel to replace a burned out banner light with a 36-inch fluorescent tube.

SEA CABINET
Clean using a commercial spray cleaner (Formula 409, Fantastik or a similar cleaner) mixed 1:1 with water.

FILTER REPLACEMENT
The Filter in the **SEA's** exhaust gas analyzer is not cleanable. It should be replaced if the words "LOW FLOW" appear on the monitor or if it appears extremely dirty or soaked.

There is a certain amount of "crush" necessary when installing a new filter or seals. Use the following procedure to get the correct amount of "crush" and not damage the bowl gasket "O" ring.

1. Scribe a vertical mark on the head assembly.
2. Remove the filter and "O" ring and install the filter bowl on the head assembly (it will require at least 3 turns).
3. Scribe a mark on the filter bowl that aligns with the mark made on the head assembly.
4. Install the "O" ring and reinstall the bowl until light contact is made. Scribe another line.
5. Install all the seals, filter and "O" rings in the filter bowl and again install the unit on the head assembly. Tighten until the scribe mark on the head assembly is between the two marks on the bowl.



ORDER KIT 31584
WHICH INCLUDES:
6—Elements 41966
3—Bowl gaskets 30134
1—Upper seal 43212
1—Lower seal 43190

NOTE: When replacing the filter, the filter bowl O-ring MUST be in place for correct calibration of the gas analyzer.

REPLACEMENT PARTS LIST

PART	P/N
Printer Paper (4 rolls)	42901
Gas Analyzer Filter	41966
Analyzer Filter Kit	31584
Includes:	
6 Filters	41966
3 Bowl Gaskets	30134
1 Upper Seal	43212
1 Lower Seal	43190
Boom Harness	
Current Probe	42856
Primary/Secondary, Closed Loop Leads	42954
Sync Probe	40895-1
Continue Button, Battery Leads	40891
Vacuum Pickup	43052
Mag. Timing Harness Only	43051
Mag. Timing Probe	41157
Timing Light	43057
Volt/Ohm Probe Harness	42953

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Division
Kalamazoo, Michigan 49007 U.S.A. • Mississauga, Ontario, Canada

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